

Statewide Strategic Plan for Feral Hog Elimination in Missouri



July 2017

Missouri Feral Hog Partnership

Definition

Section 270.400 of Missouri Revised Statutes defines a feral hog (*Sus scrofa*) as “any hog, including Russian and European wild boar that is not conspicuously identified by ear tags or other forms of identification and is roaming freely upon public or private lands without the landowner’s permission.” Free-ranging populations of feral hogs currently exist in at least 39 states and several Canadian provinces. Feral hogs have been present in small, isolated areas of Missouri for many years, but it wasn’t until the 1990’s that they really started becoming a problem. At this time hog hunting as a form of recreation began gaining in popularity and the intentional release of hogs on public land spread populations to new areas. Presently feral hogs are found in at least 30 counties in Missouri.

Vision Statement

Through collaborative partnerships, eliminate feral hogs in Missouri to protect the state’s natural resources, native fish and wildlife, agriculture, and human health.

Objectives:

1. Inform the public of the problems feral hogs cause and the need to eliminate them
2. Prevent establishment of new populations, control the sources of feral hogs, and remove incentives for releasing hogs
3. Develop and implement a strategy to eliminate feral hogs from Missouri
4. Obtain population metrics and define and develop a method to measure success of elimination efforts

Objective 1: Inform the public of the problems feral hogs cause and the need to eliminate them.

- Issue: Determining our audience?
 - Strategy: Work through an issue scoping process to determine audiences and approaches to engage them
- Issue: Much of the public is unaware of the problems associated with feral hogs
 - Strategy: Coordinate a multi-organizational statewide outreach campaign
- Issue: How will we inform/educate our audience?
 - Strategy: Continually update and implement communication plan
 - Strategy: Use sustained, consistent messaging with these and other tools
 - Public Service Announcements
 - News releases
 - Social media
 - Field trips
 - Landowner workshops
 - Stories/personal accounts, stories of success
 - Interviews with landowners

- Issue: What messaging should be used?
 - All partners should use same messaging when possible
 - Strategy: Develop a Missouri Feral Hog Partnership Communication Plan that all partners will use.
- Issue: Who should deliver the messages?
 - All partners in the Missouri Feral Hog Partnership.
 - Any other organization or group interested in protecting Missouri's fish, forest, and wildlife resources and the state's agricultural resources. Members of the Missouri Feral Hog Partnership will need to share information with these organizations. Also share information with high school and collegiate biology classes.

Objective 2: Prevent new populations, control the sources of feral hogs, and remove incentives for releasing feral hogs.

- Issue: People are intentionally moving and releasing feral hogs to establish new populations for hunting.
 - Strategy: Remove incentive to intentionally release feral hogs
 - The Conservation Department passed regulations that prohibit the take of feral livestock, including feral hogs, on land owned, leased, or managed by the Department.
 - Other agencies are considering passing similar regulations on property they own and manage.
 - Continue conversations with legislators to develop new legislation.
 - Strategy: Work with the state legislature to pass legislation requiring written permission from the landowner to pursue hogs on private land. This should decrease opportunities to pursue feral hogs and therefore decrease incentive for intentional releases.
 - Strategy: Encourage citizens to report sightings and damage. The Conservation Department and other partners have begun delivering this message in all outreach efforts.
 - Strategy: Establish a rapid response system to react to reports of new sightings and introductions of feral hogs.
- Issue: Existing regulations pertaining to feral hogs are difficult to understand
 - Strategy: Work with the Missouri Department of Agriculture to clarify or modify regulations regarding feral hogs as needed to reduce the likelihood of transport and aid in enforcement.
 - Strategy: Provide clarification of existing regulations in the educational outreach to law enforcement, prosecutors and judges.
 - Develop a document that outlines existing regulations related to feral hogs in Missouri and keep it updated.
- Issue: Penalties for illegal releases and transport are not severe enough to prevent these activities from occurring
 - Strategy: Work with the state legislature to pass legislation that places tougher penalties on individuals caught illegally releasing or transporting feral hogs.

- Strategy: Create incentive for the public to report illegal transportation and release of feral hogs similar to Operation Game Thief.
- Strategy: Work with local law enforcement and prosecutors to gain support for enforcing existing regulations.

Objective 3: Develop and implement a strategy to eliminate feral hogs where they currently exist

- Issue: It is difficult to determine the precise location of feral hog populations at any given time; therefore it is difficult to develop an elimination strategy without knowing the current distribution of feral hogs on the landscape
 - Strategy: The Department of Conservation, in cooperation with the University of Missouri is designing a camera trap research project that will begin in early 2017 to collect data with the intent of developing a model to determine feral hog distribution. The project will also provide monitoring of feral hog distribution through time to measure success of elimination efforts.
- Issue: Currently lack staff and resources to effectively attack all populations statewide simultaneously.
 - Strategy: Prioritize geographies and identify resources for feral hog elimination efforts.
 - On October 31, 2016 a group of representatives from the Missouri Feral Hog Partnership met in Jefferson City to identify the resources necessary to eliminate feral hogs from the state of Missouri based on the current understanding of feral hog distribution in Missouri.
 - Six geographic areas were identified (Figure 1) and the number of additional staff that would be needed was determined. Additionally, the cost associated with adding those additional staff, the areas where they should be based out of, and some issues associated with effective feral hog elimination in each area (see recommendations on Page 6).
 - All personnel and resources identified during that meeting are in addition to existing resources currently being allocated to feral hog elimination efforts. Figure 2 depicts the location of existing full time feral hog trappers, as well as the locations for the additional staff required. It was agreed that at a minimum all existing staff and resources should be maintained at current levels throughout implementation of the Statewide Strategic Plan.

Elimination Area 1:

- This area consists of Hickory, St. Clair, Benton and Dade counties.
- Three additional full-time trappers will be needed in this geographic area to effectively eliminate feral hogs.
- These staff should be based around Hermitage, Stockton, and El Dorado Springs.
- Challenges in Elimination Area 1: Feral hogs in this area are sparsely populated so a lot of time will be spent traveling; much of the land in this area is privately owned so access can be an issue.

Elimination Area 2:

- This area consists of Pulaski, Phelps and Texas counties.
- Five additional full-time trappers will be needed in this geographic area to effectively eliminate feral hogs.
- These staff should be based around Houston, Licking, Waynesville, and Lebanon.
- Challenges in Elimination Area 2: Vehicle access to much of this area is difficult so staff will spend extra time trying to access traps; staff will need to spend extra time building relationships with landowners in this area in order to obtain permission to access private property.

Elimination Area 3:

- This area consists of Christian, Taney, Ozark and Douglas counties.
- Four additional full-time trappers will be needed in this geographic area to effectively eliminate feral hogs.
- These staff should be based around Ava, Gainesville, Forsyth, and Ozark.
- Challenges in Elimination Area 3: Access is an issue in this area due to a lot of the land in private ownership, terrain, lack of roads, and two large reservoirs (Bull Shoals and Table Rock). This is also a large area so staff will spend significant amounts of time traveling between traps. There is a high hog density in this area. This area is close to established feral hog populations in Arkansas.

Elimination Area 4:

- This area consists of Iron, Madison, Bollinger, Wayne, and Reynolds counties.
- Ten additional full-time trappers will be needed in this geographic area to effectively eliminate feral hogs.
- Two staff should be based out of each of the five counties:
- Challenges in Elimination Area 4: A deeply-engrained hog hunting culture exists in this area; there is a lot of public land which provides good habitat for hogs; public land provides access most of the year except during hunting seasons; there are various public land managers in this area and they have different regulations; there is a high density of hogs; road access is poor throughout much of the area; communication/cell phone service in the area is very limited so smart phone technology such as the BoarBuster trap isn't available in much of the area.

Elimination Area 5:

- This area consists of Barry, Stone, and McDonald counties.
- Four additional full-time trappers will be needed in this geographic area to effectively eliminate feral hogs.
- These staff should be based around Cassville, Pineville, Monett, and Seligman.
- Challenges in Elimination Area 5: There are deep hog hunting traditions in this area; many of the roads are not in good shape so travel is difficult; large waterbodies make travel difficult; a lot of absentee landowners so communication is difficult and they cannot run traps themselves; this area

- will require a three-state coordination effort between Missouri, Oklahoma, and Arkansas which could present additional challenges.
- Aerial assistance from USDA helicopters could be very effective in this area.

Elimination Area 6:

- This area consists of Shannon, Carter, Oregon and Ripley counties.
- Initially this area could operate with existing staff with occasional assistance from one or two additional staff from Elimination Area 4.
- Challenges in Elimination Area 6: There is a strong and growing hog hunting culture, may be difficult to obtain access to private land, access difficult because rough terrain and lack of roads.

Hog Free Zone:

- There are no known populations of feral hogs in this area currently.
- If feral hogs are found in this area at any time in the future, all necessary resources will be sent to that location to eliminate those hogs as quickly as possible to prevent a population from becoming established.
- The goal is to maintain this area as hog free and to expand it as hogs are eliminated from other areas.

Recommendation:

Fund 26 additional full time trappers to supplement existing staff that are conducting feral hog control efforts to begin eliminating feral hogs from Missouri.

- If hired through USDA each additional trapper would cost approximately \$70,000.00 per year. That estimate includes equipment and supplies. The total cost would be approximately \$1.8 million per year to fully fund the strategy identified here to work toward the elimination of feral hogs from Missouri.
- In addition to the 26 additional trappers, a managerial framework will need to be developed and staff hired to fill these positions. This would include at least three Supervisor/Crew leader positions and one administrative assistant position. The administrative assistant would be in the USDA office in Columbia.
- Strategy: Work with partners in the Missouri Feral Hog Partnership and encourage them to request additional funding for elimination efforts
- Strategy: Work with agricultural and natural resources groups to obtain commitment from them to provide additional resources for feral hog elimination efforts.
- Strategy: The Conservation Department is requesting \$1.8 million dollars in FY18 for funding to obtain the additional trappers and resources as identified in this plan.
- Strategy: Work with private landowners and encourage them to provide additional funding for feral hog elimination efforts.
- Strategy: Prioritize populations to determine which ones to approach for elimination. This prioritization will be based on size of population, potential

- impacts to threatened and endangered species (Figure 3) and location of population.
- Issue: Elimination will be challenging because large numbers of feral hogs occur on private land
 - Strategy: Continue to provide technical assistance and equipment to landowners to eliminate feral hogs on private property
 - Strategy: Assure landowners receive proper training so they can be effective trappers
 - Strategy: Continue to educate the public to “Report don’t Shoot” feral hogs
- Issue: Public land (Figure 4) is largely inaccessible during hunting season Sept. 1 – Jan. 15
 - Strategy: Shut down portions of public land to hunting while hog trapping efforts are conducted
 - Strategy: Where feasible, only allow managed hunts on public lands that have hogs and close down the entire area to hunting for the rest of the season.

Objective 4: Obtain population metrics, and define and develop a way to measure success

- Issue: Lack a method to estimate population size and distribution
 - Strategy: Establish a baseline index of population using:
 - Archery surveys
 - Citizen science (trail cameras)
 - Hotline/online reporting form and office calls
 - Well designed, repeatable survey
 - Catch per unit effort (research ongoing through USDA APHIS)
 - Trend data from occupancy rate study on Fort Leonard Wood
 - Strategy: Develop a presence/absence data map with data from staff and the public.
 - Strategy: The Department of Conservation in cooperation with the University of Missouri initiated a research project in 2017 that will develop a model to accurately determine occupancy/distribution of feral hogs on the landscape.
- Issue: No consistent method to measure success (e.g. decrease in number of damage complaints, number of hogs trapped, hogs seen on trail cameras, age ratio, gender ratio, decrease in number of damage complaints)
 - Strategy: Work with experts to develop a method to measure success
 - Strategy: The Department of Conservation in cooperation with the University of Missouri initiated a research project in 2017 aimed at developing a method to measure success of elimination efforts.

Figure 1. Feral Hog Elimination Areas.

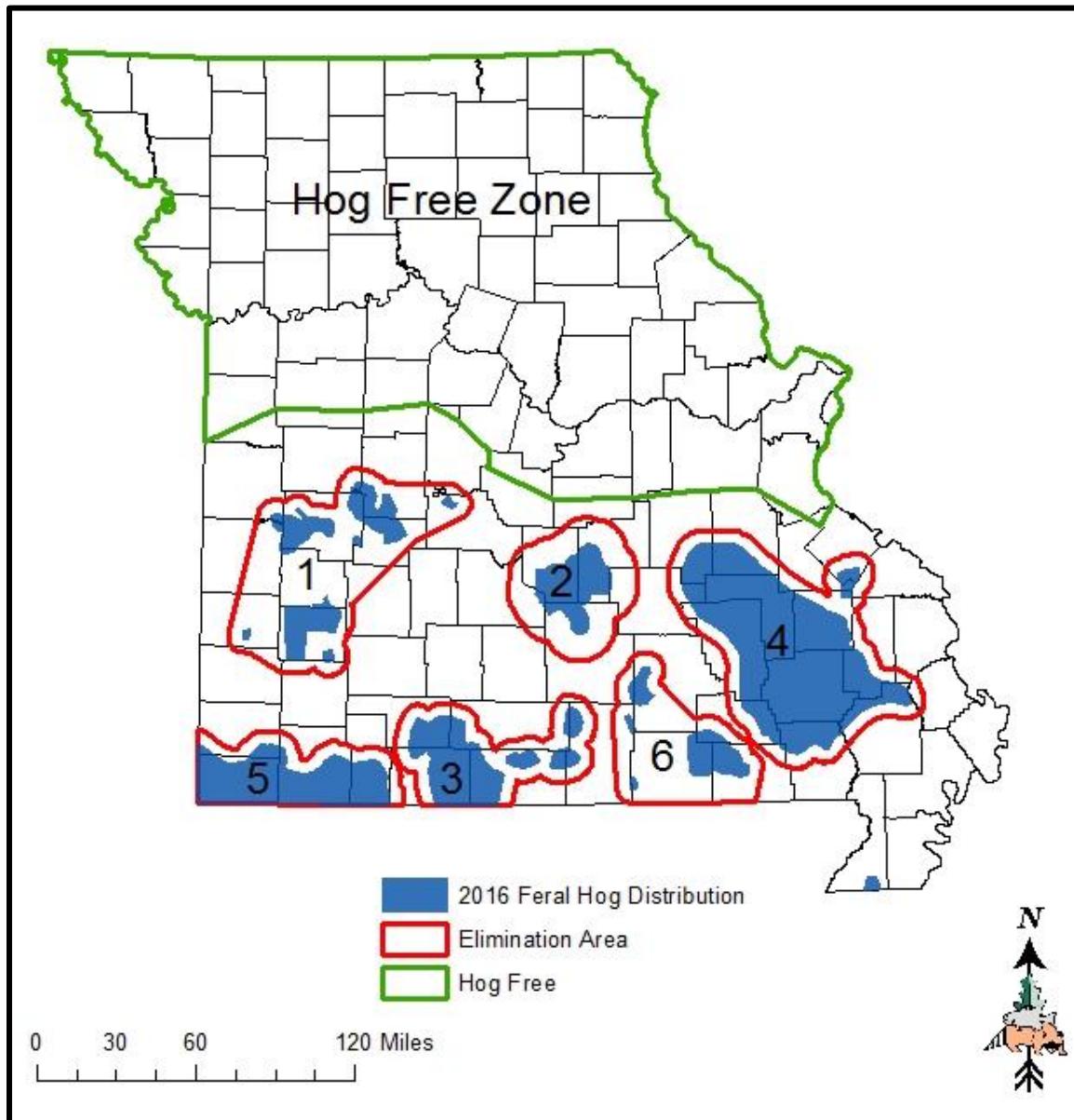


Figure 2. Locations of Existing and Future Staff Dedicated to Feral Hog Elimination.

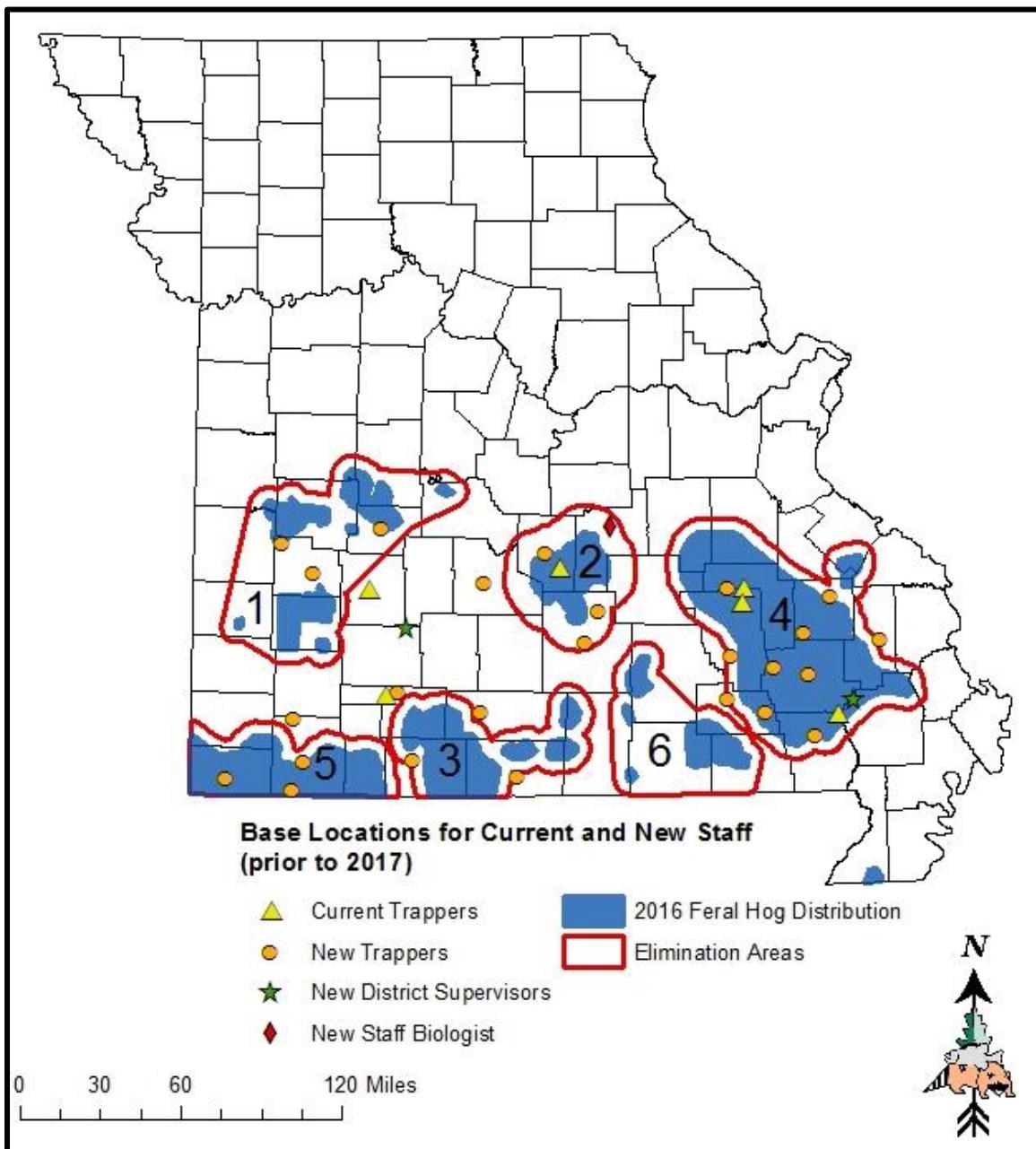


Figure 3. Threatened and Endangered Species Found in Feral Hog Range.

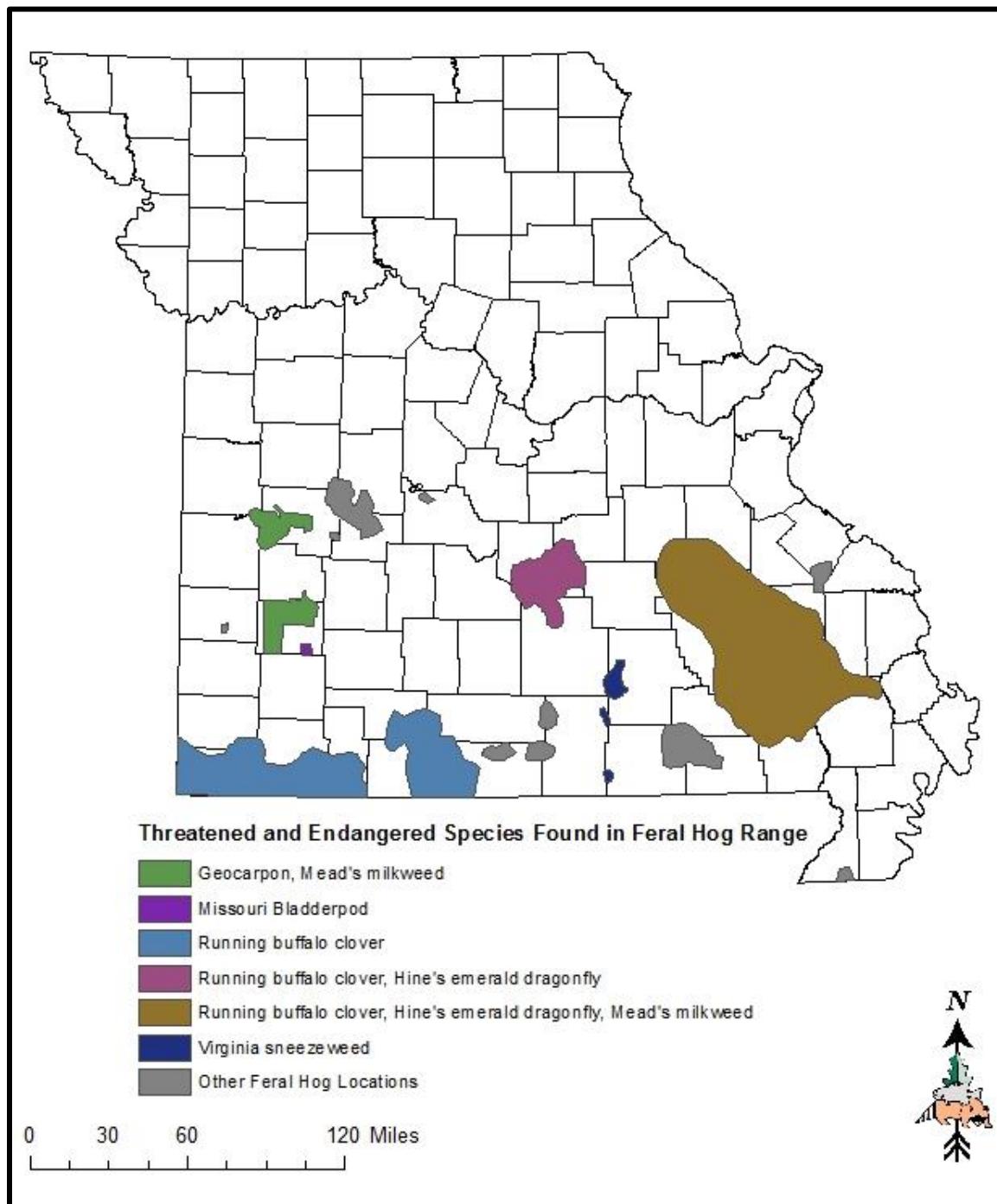


Figure 4. Distribution of Public Land in Feral Hog Range.

